

Serial No.: 09/830,666
Atty. Docket No.: P66606US0

IN THE CLAIMS:

Please amend the claims as follows:

On page 11, please amend the first line before claim 1, as follows:

--Claims What is claimed is:--

Claims 1-21 (Canceled).

22. (Previously Presented) A method for controlling an overactive bladder, comprising the steps:

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- detecting nerve signals from nerves innervating the bladder;
- detecting a bladder event from the nerve signals;
- generating electrical pulses in response to the detected event;
- stimulating afferent nerves using the generated electrical pulses in order to inhibit detrusor contraction of the bladder.

23. (Currently Amended) A method as defined in claim 22, wherein the detected nerve signals primarily come from **afferents**

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afferent nerve fibres innervating mechanoreceptors in the bladder wall.

24. (Previously Presented) A method as defined in claim 22, wherein the detected nerve signals come from efferent nerve fibres innervating the bladder.

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25. (Currently Amended) A method as defined in claim 22, wherein two different signals are used to detect—a detrusor ~~contraction~~ contractions, the ~~a~~ first ~~signals~~ signal coming from afferent nerves innervating the bladder, and the ~~a~~ second ~~signals~~ signal coming from efferent nerves innervating the detrusor muscle.

26. (Previously Presented) A method as defined in claim 22, wherein neural circuits inhibiting bladder contraction are stimulated by activating an inhibitory spinal reflex by stimulating afferent nerve fibres innervating mechanoreceptors located in the glans of the penis or clitoris.

27. (Currently Amended) A method as defined in claim 26, wherein a stimulation electrode is located at a nerve belonging to the group consisting of a dorsal penile/clitoris nerve, a pudendal

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nerve, an extradural sacral nerve root orand an intradural dorsal sacral nerve root.

28. (Currently Amended) A method as defined in claim 22, wherein both a detecting electrode and a stimulation electrode is are located at either the intradural dorsal sacral nerve roots or the extradural sacral nerve root.

29. (Previously Presented) A method as defined in claim 28, wherein the dorsal sacral nerve roots belong to the group S2-S4.

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Claims 30-39 (Canceled).

40. (New) The method as set forth in claim 22, further comprising the step of estimating bladder volume in response to the detected signals using signal-processing methods.

41. (New) The method as set forth in claim 40, wherein said step of estimating is performed using an amplitude of the detected nerve signals.

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42. (New) The method as set forth in claim 40, wherein said step of estimating is performed using a time between two detected nerve signals derived from two consecutive detrusor contractions.

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43. (New) The method as set forth in claim 40, wherein said step of estimating is performed using an amplitude of the detected nerve signals and a time between two detected nerve signals derived from two consecutive detrusor contractions.

44. (New) The method as set forth in claim 40, further comprising the steps of:

transmitting, from a transmitter placed inside a user's body, a signal when a predetermined threshold value for bladder volume has been exceeded;

receiving the signal with a receiver located outside the user's body;

actuating an alert in response to the received signal for alerting the user that the threshold value has been reached.